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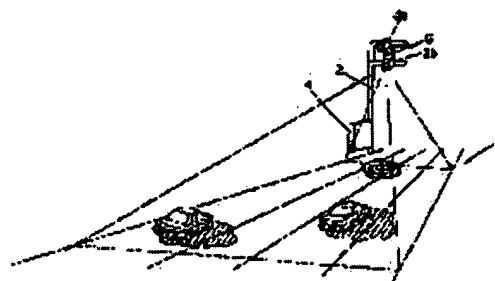
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(54) OBJECT OBSERVATION METHOD AND OBJECT OBSERVATION APPARATUS
USING THIS METHOD, AS WELL AS TRAFFIC-FLOW MEASURING APPARATUS USING
THIS APPARATUS, AND PARKING-LOT OBSERVATION APPARATUS

(57)Abstract:

PROBLEM TO BE SOLVED: To observe an object as a target with high accuracy.

SOLUTION: Two cameras 3a, 3b are arranged side by side in the longitudinal direction on a road 1 in a state that their optical axes are made parallel toward the road 1. Images picked up simultaneously by the respective cameras 3a, 3b are input to a control processor 4. The control processor 4 extracts an edge component in the horizontal direction regarding the images from the respective cameras 3a, 3b, it performs a correspondence processing operation between the images regarding every edge constituent point, and it computes three- dimensional coordinates corresponding to every edge constituent point on the basis of a



correspondence result. In addition, the control processor 4 sets a virtual vertical plane along every roadway, and it projects every three- dimensional coordinate point on a virtual vertical plane. A projected result is compared with a side-face shape model stored in a memory inside, and the type, the position and the like of a vehicle are discriminated on the basis of a compared result.

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